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\*\*\*\*\* Welcome to STN International \*\*\*\*\*

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America  
NEWS 2 Jan 15 BLAST(R) searching in REGISTRY available in STN on the Web  
NEWS 3 Jan 18 ESTA has been reloaded and moves to weekly updates  
NEWS 4 Feb 01 EKLIT now produced by EIZ Karlsruhe and has a new update frequency  
NEWS 5 Feb 14 Access via Tymnet and SprintNet Eliminated Effective 3/31/02  
NEWS 6 Mar 04 Gene Names now available in BIOSIS  
NEWS 7 Mar 11 TOWLIT no longer available  
NEWS 8 Mar 11 TROTHERMO no longer available  
NEWS 9 Mar 14 US Provisional Priorities searched with P in CAPLUS and USPATFULL  
NEWS 10 Mar 18 LIBINSKI/CALC added for property searching in REGISTRY  
NEWS 11 Apr 01 PAPERCHEM no longer available in STN. Use PAPERCHEM2 instead.  
NEWS 12 Apr 01 "Ask CAS" for self-help around the clock  
NEWS 13 Apr 01 BEILSTEIN: Reload and Implementation of a New Subject Area  
NEWS 14 Apr 01 ZOE will be removed from STN  
NEWS 15 Apr 14 US Patent Applications available in IFICDB, IFIPAT, and IFIUDB  
NEWS 16 Apr 14 Records from IP.com available in CAPLUS, SCAPLUS, and ZCAPLUS  
NEWS 17 Apr 14 BIOSIS Gene Names now available in TORCENTER  
NEWS 18 Apr 14 Federal Research in Progress (FEDRIP) now available  
NEWS 19 May 01 ECIFULL to be reloaded. File temporarily unavailable.  
NEWS 20 Jun 03 New e-mail delivery for search results now available  
  
NEWS EXPRESS February 1 CURRENT WINDOWS VERSION IS V6.0a,  
CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP),  
AND CURRENT DISCOVER FILE IS DATED 01 FEBRUARY 200.  
  
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\*\*\*\*\* STN Columbus \*\*\*\*\*

FILE 'HOME' ENTERED AT 05:33:04 ON 01 JUN 2002

= file registry

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'REGISTRY' ENTERED AT 08:33:41 ON 14 JUN 2002

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STRUCTURE FILE UPDATES: 2 JUN 2001 HIGHEST EN 404787-52-0  
 DICTIONARY FILE UPDATES: 2 JUN 2001 HIGHEST EN 404787-52-0

TDCA INFORMATION NOW CURRENT THROUGH January 3, 2002

Please note that search-term pricing does apply when  
 conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Calculated physical property data is now available. See HELP PROPERTIES  
 for more information. See STNote 17, Searching Properties in the CAS  
 Registry File, for complete details:  
<http://www.cas.org/ONLINE/STN-STNOTES/stnotes17.pdf>

=> e aluminum gallium nitride for

```

E1      1      ALUMINUM GALLIUM NICKEL SILICON HYDROXIDE OXIDE/CN
E2      1      ALUMINUM GALLIUM NIOBIUM NITRIDE (Al0.1Ga0.3Nb0.02N)/CN
E3      0 --> ALUMINUM GALLIUM NITRIDE, CN
E4      1      ALUMINUM GALLIUM NITRIDE ((AL,Ga)N)/CN
E5      1      ALUMINUM GALLIUM NITRIDE (Al0-0.01Ga1.99-1N)/CN
E6      1      ALUMINUM GALLIUM NITRIDE (Al0-0.06Ga0.94-1N)/CN
E7      1      ALUMINUM GALLIUM NITRIDE (Al0-0.17Ga1.83-1N)/CN
E8      1      ALUMINUM GALLIUM NITRIDE (Al0-0.18Ga1.87-1N)/CN
E9      1      ALUMINUM GALLIUM NITRIDE (Al0-0.18Ga1.86-1N)/CN
E10     1      ALUMINUM GALLIUM NITRIDE (Al0-0.16Ga1.84-1N)/CN
E11     1      ALUMINUM GALLIUM NITRIDE (Al0-0.17Ga1.83-1N)/CN
E12     1      ALUMINUM GALLIUM NITRIDE (Al0-0.16Ga1.9-1N)/CN
  
```

=> s eq

D1 1 "ALUMINUM GALLIUM NITRIDE ((AL,Ga)N)" CN

=> a li

```

L1      ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2002 ACS
R1      166097-44-3  REGISTRY
CN      Aluminum gallium nitride ((Al,Ga)N) (9CI)  CA INDEX NAME)
OTHER NAMES:
CN      Aluminum gallium nitride (Al0-1Ga1-1N)
MF      Al . Ga . N
AP      Al0-1 Ga0-1 N
CI      T16
SR      CA
L1      STN Files:  CA, CAPLUS, TOXCENTER, USPAT1, USPATFULL
  
```

Component	Ratio	Component	Registry Number
N	1		17871-11-1
Ga	0 - 1		7440-11-3
Al	0 - 1		7429-91-3

2296 REFERENCES IN FILE CA (1967 TO DATE)  
 2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 2313 REFERENCES IN FILE CAPLUS (1967 TO DATE)

=> file caplus  
 COST IN U.S. DOLLARS

SINCE FILE ENTRY TOTAL  
 ENTRY SESSION

FULL ESTIMATED COST

9.38

9.59

FILE 'CAPLUS' ENTERED AT 09:39:37 ON 04 JUN 2002  
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FILE COVERS 1907 - 4 Jun 2002 VOL 136 ISS 23  
FILE LAST UPDATED: 2 Jun 2002 (10020602/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (LFL field) in this file.

=> s 11

L1 13303 L1

=> s epitaxial growth

69109 EPITAXIAL

(EPITAXIAL OF EPITAXIALS)

991168 GROWTH

(GROWTH OF GROWTHS)

L2 14818 EPITAXIAL GROWTH

(EPITAXIAL (W/ GROWTH))

=> s 12 and 13

L4 66 L2 AND L3

=> d 14 1-1 abik abs

L4 ANSWER 1 OF 66 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1002:261146 CAPLUS

DOCUMENT NUMBER: 136:333314

TITLE: Gas source molecular beam epitaxy of high quality AlGaIn on Si and sapphire

AUTHOR(S): Nikishin, S.; Kipshidze, G.; Kuryatkov, V.; Zubrilov, A.; Choi, K.; Gherasoiu, I.; Grave de Peralta, L.; Prokofyeva, T.; Holtz, M.; Asomoza, R.; Kudryavtsev, I.; Temkin, H.

CORRELATE SOURCE: Department of Electrical Engineering, Texas Tech University, Lubbock, TX, 79401, USA

SOURCE: Materials Research Society Symposium Proceedings (2001), 639(GaN and Related Alloys--2000), G11.37/1-G11.37/6

CODEN: MRSPOE; ISSN: 0272-9172

PUBLISHER: Materials Research Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB We report the results of **epitaxial growth** expts. on

AlxGa1-xN (0.1toeq. x .1toeq. 1) on Si(111) and sapphire substrates aimed at understanding the origin and elimination of cracking. We describe growth procedures resulting in thick layers of AlxGa1-xN, grown by gas source mol. beam epitaxy with ammonia, that are free of cracks. In GaN layers with the thickness of .apprx.2.5 .mu.m, we find the background electron concn. of (1-2).times.1016 cm-3 and mobility of (800.+-.100) cm2/Vs. In AlxGa1-xN (0.1 < x < 0.6) with the film thickness of 0.5-0.7 .mu.m the electron concn. of (1-2).times.1016 cm-3 is obtained. Low background concns. in GaN allow for formation of p-n junctions by doping with Mg. Light emitting diodes with the peak emission at 380 nm have been demonstrated.

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 66 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2002:161119 CAPLUS

DOCUMENT NUMBER: 136:347361

TITLE: AC operation of GaN:Er thin film electroluminescent display devices

AUTHOR(S): Heikenfeld, J.; Steckl, A. J.

CORPORATE SOURCE: Nanoelectronics Laboratory, University of Cincinnati, Cincinnati, OH, 45221-0030, USA

SOURCE: Materials Research Society Symposium Proceedings (2001), 619(GaN and Related Alloys--2000), 610.4/1-610.4/6

CODEN: MRSFDB; ISSN: 0270-9172

PUBLISHER: Materials Research Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Thin-film electroluminescence was obtained from GaN:Er deposited directly on amorphous dielec. layers. Electroluminescent device (ELD) structures consisting of a dielec./GaN/dielec. were formed on p+-Si substrates. In contrast to previous GaN:Er ELDs which used **epitaxial growth** conditions on cryst. substrates and were operated under d.c. bias, these ELDs were operated under a.c. bias. A max. luminance value of 100, 60, and 15 cd/m2 was achieved from GaN:Er and AlGaIn:Er AC-ELDs biased at 130 V and 130, 10, and 1 kHz, resp. The emission spectra, which originate from Er3+ 4f-4f transitions, consist of dominant visible emission at .apprx.637/555 nm and IR emission at 1.5 .mu.m. A violet emission peak at 415 nm indicates that hot carriers can gain up to .apprx.3 eV energy for an applied voltage corresponding to 1.5 MV/cm applied field. The emitted intensity initially increases linearly with frequency, followed by a trend towards satn. The frequency for 3 dB redn. from the linear relation is at .apprx.65 kHz for visible emission and .apprx.8 kHz for IR emission. The satn. trends can be explained in terms of the spontaneous emission lifetimes of the visible (.apprx.10 .mu.s) and IR (.apprx.1ms) Er3+ emissions.

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

no file rex

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

14.17

21.76

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

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-1.24

-1.24

FILE 'REGISTRY' ENTERED AT 08:49:11 ON 04 JUN 2002

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STRUCTURE FILE UPDATES: 2 JUN 2002 HIGHEST RN 424787-53-0  
DICTIONARY FILE UPDATES: 2 JUN 2002 HIGHEST RN 424787-53-0

TSCA INFORMATION NOW CURRENT THROUGH January 7, 2002

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Calculated physical property data is now available. See HELP PROPERTIES  
for more information. See STNote 27, Searching Properties in the CAS  
Registry File, for complete details:  
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> d his

(FILE 'HOME' ENTERED AT 08:31:04 ON 04 JUN 2002)

FILE 'REGISTRY' ENTERED AT 08:33:41 ON 04 JUN 2002  
E ALUMINUM GALLIUM NITRIDE/CN

L1 1 S E4

FILE 'CAPLUS' ENTERED AT 08:39:37 ON 04 JUN 2002

L2 2318 S L1  
L3 19818 S EPITAXIAL GROWTH  
L4 66 S L1 AND L3

FILE 'REGISTRY' ENTERED AT 08:49:11 ON 04 JUN 2002

=> e aluminum gallium nitride/cn

E1 1 ALUMINUM GALLIUM NICKEL SILICON HYDROXIDE OXIDE/CN  
E2 1 ALUMINUM GALLIUM NIOBIUM NITRIDE (AL0.1GA0.34NB0.02N)/CN  
E3 0 --> ALUMINUM GALLIUM NITRIDE/CN  
E4 1 ALUMINUM GALLIUM NITRIDE (AL0.1GA0.1)/CN  
E5 1 ALUMINUM GALLIUM NITRIDE (AL0-0.11GA0.99-1H)/CN  
E6 1 ALUMINUM GALLIUM NITRIDE (AL0-0.16GA0.84-1H)/CN  
E7 1 ALUMINUM GALLIUM NITRIDE (AL0-0.13GA0.87-1H)/CN  
E8 1 ALUMINUM GALLIUM NITRIDE (AL0-0.13GA0.87-1H)/CN  
E9 1 ALUMINUM GALLIUM NITRIDE (AL0-0.14GA0.86-1H)/CN  
E10 1 ALUMINUM GALLIUM NITRIDE (AL0-0.16GA0.84-1H)/CN  
E11 1 ALUMINUM GALLIUM NITRIDE (AL0-0.17GA0.83-1H)/CN  
E12 1 ALUMINUM GALLIUM NITRIDE (AL0-0.18GA0.82-1H)/CN

=> e

E13 1 ALUMINUM GALLIUM NITRIDE (AL0-0.11GA0.78-1H)/CN  
E14 1 ALUMINUM GALLIUM NITRIDE (AL0-0.15GA0.75-1H)/CN  
E15 1 ALUMINUM GALLIUM NITRIDE (AL0-0.18GA0.7-1H)/CN  
E16 1 ALUMINUM GALLIUM NITRIDE (AL0-0.25GA0.65-1H)/CN  
E17 1 ALUMINUM GALLIUM NITRIDE (AL0-0.33GA0.7-1H)/CN  
E18 1 ALUMINUM GALLIUM NITRIDE (AL0-0.45GA0.55-1H)/CN  
E19 1 ALUMINUM GALLIUM NITRIDE (AL0-0.4GA0.6-1H)/CN  
E20 1 ALUMINUM GALLIUM NITRIDE (AL0-0.5GA0.5-1H)/CN  
E21 1 ALUMINUM GALLIUM NITRIDE (AL0-0.6GA0.4-1H)/CN  
E22 1 ALUMINUM GALLIUM NITRIDE (AL0-0.7GA0.3-1H)/CN  
E23 1 ALUMINUM GALLIUM NITRIDE (AL0-1GA0-1H)/CN  
E24 1 ALUMINUM GALLIUM NITRIDE (AL0.01GA0.99)/CN

=> e

E25 1 ALUMINUM GALLIUM NITRIDE (AL0.02-1GA0-0.98H)/CN  
E26 1 ALUMINUM GALLIUM NITRIDE (AL0.03GA0.98H)/CN  
E27 1 ALUMINUM GALLIUM NITRIDE (AL0.03GA0.97H)/CN  
E28 1 ALUMINUM GALLIUM NITRIDE (AL0.04-0.13GA0.87-0.96N)/CN

E29	1	ALUMINUM	GALLIUM	NITRIDE	(AL0.04-0.26GA0.8-0.96N)/CN
E30	1	ALUMINUM	GALLIUM	NITRIDE	(AL1.04GA0.96N)/CN
E31	1	ALUMINUM	GALLIUM	NITRIDE	(AL0.05-0.15GA0.85-0.95N)/CN
E32	1	ALUMINUM	GALLIUM	NITRIDE	(AL1.05-0.95GA0.8-0.95N)/CN
E33	1	ALUMINUM	GALLIUM	NITRIDE	(AL1.05-0.95GA0.8-0.95N)/CN
E34	1	ALUMINUM	GALLIUM	NITRIDE	(AL1.05-0.95GA0.7-0.95N)/CN
E35	1	ALUMINUM	GALLIUM	NITRIDE	(AL0.05-0.95GA0.04-0.95N)/CN
E36	1	ALUMINUM	GALLIUM	NITRIDE	(AL0.05-1.0GA0-0.95N)/CN

= 1 e

E37	1	ALUMINUM	GALLIUM	NITRIDE	AL1.05GA0.95N)/CN
E38	1	ALUMINUM	GALLIUM	NITRIDE	AL1.05-0.95GA0.92-0.94N)/CN
E39	1	ALUMINUM	GALLIUM	NITRIDE	AL0.05GA0.94N)/CN
E40	1	ALUMINUM	GALLIUM	NITRIDE	(AL0.07-0.15GA0.9-0.95N)/CN
E41	1	ALUMINUM	GALLIUM	NITRIDE	AL0.07-0.15GA0.8-0.95N)/CN
E42	1	ALUMINUM	GALLIUM	NITRIDE	(AL0.07-0.14GA0.8-0.95N)/CN
E43	1	ALUMINUM	GALLIUM	NITRIDE	AL0.07GA0.95N)/CN
E44	1	ALUMINUM	GALLIUM	NITRIDE	(AL0.08-0.15GA0.85-0.92N)/CN
E45	1	ALUMINUM	GALLIUM	NITRIDE	(AL0.08-0.15GA0.8-0.92N)/CN
E46	1	ALUMINUM	GALLIUM	NITRIDE	AL0.08-0.15GA0.65-0.92N)/CN
E47	1	ALUMINUM	GALLIUM	NITRIDE	AL0.08GA0.92N)/CN
E48	1	ALUMINUM	GALLIUM	NITRIDE	(AL1.08-0.15GA0.8-0.91N)/CN

= 1 e

E49	1	ALUMINUM	GALLIUM	NITRIDE	AL1.08-0.15GA0.85-0.91N)/CN
E50	1	ALUMINUM	GALLIUM	NITRIDE	AL0.15GA0.84N)/CN
E51	1	ALUMINUM	GALLIUM	NITRIDE	(AL0.1-0.26GA0.8-0.90N)/CN
E52	1	ALUMINUM	GALLIUM	NITRIDE	(AL0.1-0.26GA0.7-0.90N)/CN
E53	1	ALUMINUM	GALLIUM	NITRIDE	AL0.1-0.26GA0.6-0.90N)/CN
E54	1	ALUMINUM	GALLIUM	NITRIDE	AL0.1-0.26GA0.5-0.90N)/CN
E55	1	ALUMINUM	GALLIUM	NITRIDE	(AL0.1-0.26GA0.4-0.90N)/CN
E56	1	ALUMINUM	GALLIUM	NITRIDE	(AL0.1-0.26GA0.1-0.90N)/CN
E57	1	ALUMINUM	GALLIUM	NITRIDE	(AL0.1-1GA0-0.90N)/CN
E58	1	ALUMINUM	GALLIUM	NITRIDE	(AL0.11GA0.89N)/CN
E59	1	ALUMINUM	GALLIUM	NITRIDE	(AL0.11-1GA0-0.89N)/CN
E60	1	ALUMINUM	GALLIUM	NITRIDE	AL0.11GA0.89N)/CN

= 1 e

E61	1	ALUMINUM	GALLIUM	NITRIDE	(AL0.15GA0.89N)/CN
E62	1	ALUMINUM	GALLIUM	NITRIDE	(AL0.15GA0.89N)/CN
E63	1	ALUMINUM	GALLIUM	NITRIDE	(AL0.15-0.47GA0.53-0.96N)/CN
E64	1	ALUMINUM	GALLIUM	NITRIDE	AL0.15GA0.86N)/CN
E65	1	ALUMINUM	GALLIUM	NITRIDE	AL0.15-0.25GA0.8-0.95N)/CN
E66	1	ALUMINUM	GALLIUM	NITRIDE	AL1.15-0.55GA0.45-0.95N)/CN
E67	1	ALUMINUM	GALLIUM	NITRIDE	AL1.15GA0.55N)/CN
E68	1	ALUMINUM	GALLIUM	NITRIDE	(AL0.16GA0.84N)/CN
E69	1	ALUMINUM	GALLIUM	NITRIDE	(AL0.17GA0.83N)/CN
E70	1	ALUMINUM	GALLIUM	NITRIDE	(AL0.15GA0.82N)/CN
E71	1	ALUMINUM	GALLIUM	NITRIDE	(AL0.15GA0.81N)/CN
E72	1	ALUMINUM	GALLIUM	NITRIDE	AL0.15GA0.8N)/CN

= 1 e

E73	1	ALUMINUM	GALLIUM	NITRIDE	(AL0.2-0.66GA0.4-0.8N)/CN
E74	1	ALUMINUM	GALLIUM	NITRIDE	(AL0.2-0.66GA0.1-0.8N)/CN
E75	1	ALUMINUM	GALLIUM	NITRIDE	AL0.21GA0.79N)/CN
E76	1	ALUMINUM	GALLIUM	NITRIDE	AL0.21GA0.78N)/CN
E77	1	ALUMINUM	GALLIUM	NITRIDE	AL0.23GA0.77N)/CN
E78	1	ALUMINUM	GALLIUM	NITRIDE	AL0.24GA0.76N)/CN
E79	1	ALUMINUM	GALLIUM	NITRIDE	(AL1.25-0.95GA0.95-0.75N)/CN
E80	1	ALUMINUM	GALLIUM	NITRIDE	(AL0.25GA0.75N)/CN
E81	1	ALUMINUM	GALLIUM	NITRIDE	(AL0.26GA0.74N)/CN
E82	1	ALUMINUM	GALLIUM	NITRIDE	AL0.27GA0.73N)/CN
E83	1	ALUMINUM	GALLIUM	NITRIDE	AL1.28GA0.72N)/CN
E84	1	ALUMINUM	GALLIUM	NITRIDE	(AL1.29GA0.71N)/CN

=> 2

E95	1	ALUMINUM GALLIUM NITRIDE	(AL0.3GA0.8N)/CN
E96	1	ALUMINUM GALLIUM NITRIDE	(AL0.3-1GA0-0.7N)/CN
E97	1	ALUMINUM GALLIUM NITRIDE	(AL0.31GA0.6N)/CN
E98	1	ALUMINUM GALLIUM NITRIDE	(AL0.32GA0.6N)/CN
E99	1	ALUMINUM GALLIUM NITRIDE	(AL0.33GA0.6N)/CN
E00	1	ALUMINUM GALLIUM NITRIDE	(AL0.34GA0.6N)/CN
E01	1	ALUMINUM GALLIUM NITRIDE	(AL0.35GA0.6N)/CN
E02	1	ALUMINUM GALLIUM NITRIDE	(AL0.36-0.42GA0.58-0.64N)/CN
E03	1	ALUMINUM GALLIUM NITRIDE	(AL0.36GA0.6N)/CN
E04	1	ALUMINUM GALLIUM NITRIDE	(AL0.37GA0.6N)/CN
E05	1	ALUMINUM GALLIUM NITRIDE	(AL0.38GA0.6N)/CN
E06	1	ALUMINUM GALLIUM NITRIDE	(AL0.39GA0.6N)/CN

=> 3

E97	1	ALUMINUM GALLIUM NITRIDE	(AL0.3GA0.7N)/CN
E98	1	ALUMINUM GALLIUM NITRIDE	(AL0.4-1GA0-0.6N)/CN
E99	1	ALUMINUM GALLIUM NITRIDE	(AL0.41GA0.5N)/CN
E100	1	ALUMINUM GALLIUM NITRIDE	(AL0.42GA0.5N)/CN
E101	1	ALUMINUM GALLIUM NITRIDE	(AL0.43GA0.5N)/CN
E102	1	ALUMINUM GALLIUM NITRIDE	(AL0.44GA0.5N)/CN
E103	1	ALUMINUM GALLIUM NITRIDE	(AL0.45-0.85GA0.15-0.55N)/CN
E104	1	ALUMINUM GALLIUM NITRIDE	(AL0.45GA0.5N)/CN
E105	1	ALUMINUM GALLIUM NITRIDE	(AL0.46GA0.5N)/CN
E106	1	ALUMINUM GALLIUM NITRIDE	(AL0.47GA0.5N)/CN
E107	1	ALUMINUM GALLIUM NITRIDE	(AL0.48GA0.5N)/CN
E108	1	ALUMINUM GALLIUM NITRIDE	(AL0.49GA0.5N)/CN

=> 4

E109	1	ALUMINUM GALLIUM NITRIDE	(AL0.4GA0.6N)/CN
E110	1	ALUMINUM GALLIUM NITRIDE	(AL0.5-1GA0-0.5N)/CN
E111	1	ALUMINUM GALLIUM NITRIDE	(AL0.51-1GA0-0.49N)/CN
E112	1	ALUMINUM GALLIUM NITRIDE	(AL0.51GA0.4N)/CN
E113	1	ALUMINUM GALLIUM NITRIDE	(AL0.52GA0.4N)/CN
E114	1	ALUMINUM GALLIUM NITRIDE	(AL0.53GA0.4N)/CN
E115	1	ALUMINUM GALLIUM NITRIDE	(AL0.54GA0.4N)/CN
E116	1	ALUMINUM GALLIUM NITRIDE	(AL0.55GA0.4N)/CN
E117	1	ALUMINUM GALLIUM NITRIDE	(AL0.56GA0.4N)/CN
E118	1	ALUMINUM GALLIUM NITRIDE	(AL0.57GA0.4N)/CN
E119	1	ALUMINUM GALLIUM NITRIDE	(AL0.58GA0.4N)/CN
E120	1	ALUMINUM GALLIUM NITRIDE	(AL0.59GA0.4N)/CN

=> 5

E121	1	ALUMINUM GALLIUM NITRIDE	(AL0.5GA0.5N)/CN
E122	1	ALUMINUM GALLIUM NITRIDE	(AL0.6-0.65GA0.35-0.4N)/CN
E123	1	ALUMINUM GALLIUM NITRIDE	(AL0.61GA0.3N)/CN
E124	1	ALUMINUM GALLIUM NITRIDE	(AL0.62GA0.3N)/CN
E125	1	ALUMINUM GALLIUM NITRIDE	(AL0.63GA0.3N)/CN
E126	1	ALUMINUM GALLIUM NITRIDE	(AL0.64GA0.3N)/CN
E127	1	ALUMINUM GALLIUM NITRIDE	(AL0.65GA0.3N)/CN
E128	1	ALUMINUM GALLIUM NITRIDE	(AL0.66GA0.3N)/CN
E129	1	ALUMINUM GALLIUM NITRIDE	(AL0.67GA0.3N)/CN
E130	1	ALUMINUM GALLIUM NITRIDE	(AL0.68GA0.3N)/CN
E131	1	ALUMINUM GALLIUM NITRIDE	(AL0.69GA0.3N)/CN
E132	1	ALUMINUM GALLIUM NITRIDE	(AL0.6GA0.4N)/CN

=> 6

E133	1	ALUMINUM GALLIUM NITRIDE	(AL0.7-1GA0-0.3N)/CN
E134	1	ALUMINUM GALLIUM NITRIDE	(AL0.71GA0.2N)/CN
E135	1	ALUMINUM GALLIUM NITRIDE	(AL0.72GA0.2N)/CN
E136	1	ALUMINUM GALLIUM NITRIDE	(AL0.73GA0.2N)/CN
E137	1	ALUMINUM GALLIUM NITRIDE	(AL0.74GA0.2N)/CN
E138	1	ALUMINUM GALLIUM NITRIDE	(AL0.76GA0.24N)/CN

E139	1	ALUMINUM GALLIUM NITRIDE (AL0.77GA0.22N)/CN
E140	1	ALUMINUM GALLIUM NITRIDE (AL0.75GA0.25N)/CN
E141	1	ALUMINUM GALLIUM NITRIDE (AL0.74GA0.26N)/CN
E142	1	ALUMINUM GALLIUM NITRIDE (AL0.73GA0.27N)/CN
E143	1	ALUMINUM GALLIUM NITRIDE (AL0.8-0.2GA0.2-0.2N)/CN
E144	1	ALUMINUM GALLIUM NITRIDE (AL0.81GA0.19N)/CN
=0.2		
E145	1	ALUMINUM GALLIUM NITRIDE (AL0.82GA0.18N)/CN
E146	1	ALUMINUM GALLIUM NITRIDE (AL0.84GA0.16N)/CN
E147	1	ALUMINUM GALLIUM NITRIDE (AL0.85-0.15GA0.05-0.15N)/CN
E148	1	ALUMINUM GALLIUM NITRIDE (AL0.88-0.12GA0.1-0.15N)/CN
E149	1	ALUMINUM GALLIUM NITRIDE (AL0.85GA0.15N)/CN
E150	1	ALUMINUM GALLIUM NITRIDE (AL0.86GA0.14N)/CN
E151	1	ALUMINUM GALLIUM NITRIDE (AL0.87GA0.13N)/CN
E152	1	ALUMINUM GALLIUM NITRIDE (AL0.88GA0.12N)/CN
E153	1	ALUMINUM GALLIUM NITRIDE (AL0.89GA0.11N)/CN
E154	1	ALUMINUM GALLIUM NITRIDE (AL0.8GA0.2N)/CN
E155	1	ALUMINUM GALLIUM NITRIDE (AL0.91GA0.09N)/CN
E156	1	ALUMINUM GALLIUM NITRIDE (AL0.94GA0.06N)/CN
=0.2		
E157	1	ALUMINUM GALLIUM NITRIDE (AL0.95GA0.05N)/CN
E158	1	ALUMINUM GALLIUM NITRIDE (AL0.96GA0.04N)/CN
E159	1	ALUMINUM GALLIUM NITRIDE (AL0.97GA0.03N)/CN
E160	1	ALUMINUM GALLIUM NITRIDE (AL0.98GA0.02N)/CN
E161	1	ALUMINUM GALLIUM NITRIDE (AL0.99GA0.01N)/CN
E162	1	ALUMINUM GALLIUM NITRIDE (AL0.99N)/CN
E163	1	ALUMINUM GALLIUM NITRIDE (ALGA15N)/CN
E164	1	ALUMINUM GALLIUM NITRIDE (ALGAN)/CN
E165	1	ALUMINUM GALLIUM NITRIDE PHOSPHIDE (AL,GA,N,P)/CN
E166	1	ALUMINUM GALLIUM NITRIDE PHOSPHIDE (AL,GA,N,0.8-1P)/CN
E167	1	ALUMINUM GALLIUM NITRIDE PHOSPHIDE (AL0.99GA0.01N,0.2P,0.02)/CN
E168	1	ALUMINUM GALLIUM NITRIDE PHOSPHIDE (AL0.99GA0.01N,0.2P,0.02)/CN
=0.2		
E169	1	ALUMINUM GALLIUM NITRIDE PHOSPHIDE (AL0.99GA0.01N,0.2P,0.02)/CN
E170	1	ALUMINUM GALLIUM NITRIDE PHOSPHIDE (AL0.99GA0.01N,0.2P,0.12)/CN
E171	1	ALUMINUM GALLIUM NITRIDE PHOSPHIDE (AL0.99GA0.01N,0.2P,0.2)/CN
E172	1	ALUMINUM GALLIUM NITRIDE PHOSPHIDE (AL0.99GA0.01N,0.2P,0.02)/CN
E173	1	ALUMINUM GALLIUM NITRIDE PHOSPHIDE (AL0.99GA0.01N,0.2P,0.2)/CN
E174	1	ALUMINUM GALLIUM NITRIDE PHOSPHIDE (AL0.99GA0.01N,0.2P,0.02)/CN
E175	1	ALUMINUM GALLIUM NITRIDE PHOSPHIDE (AL0.99GA0.01N,0.2P,0.06)/CN
E176	1	ALUMINUM GALLIUM NITRIDE PHOSPHIDE (AL0.99GA0.01N,0.2P,0.01)/CN
E177	1	ALUMINUM GALLIUM NITRIDE PHOSPHIDE (AL0.99GA0.01N,0.2P,0.04)/CN
E178	1	ALUMINUM GALLIUM NITRIDE PHOSPHIDE (AL0.99GA0.01N,0.2P,0.1)/CN
E179	1	ALUMINUM GALLIUM NITRIDE PHOSPHIDE (AL0.99GA0.01N,0.2P,0.02)/CN
E180	1	ALUMINUM GALLIUM NITRIDE PHOSPHIDE (AL0.99GA0.01N,0.2P,0.02)/CN

=0.3 el-164

L5 161 ("ALUMINUM GALLIUM NICKEL SILICON HYDROXIDE OXIDE"/CN OR "ALUMINUM GALLIUM NIOBIUM NITRIDE (AL0.1GA0.89NB0.1N)/CN OR "ALUMINUM GALLIUM NITRIDE (AL0.1GA0.89N)/CN OR "ALUMINUM GALLIUM NITRIDE (AL0.06GA0.94-1N)/CN OR "ALUMINUM GALLIUM NITRIDE (AL0-0.06GA0.94-1N)/CN OR "ALUMINUM GALLIUM NITRIDE (AL0-0.12GA0.88-1N)/CN OR "ALUMINUM GALLIUM NITRIDE (AL0-0.13GA0.87-1N)/CN OR "ALUMINUM GALLIUM NITRIDE (AL0-0.14GA

0.36-1N)"/CN OR "ALUMINUM GALLIUM NITRIDE (AL0-0.16GA0.34-1N)"/C  
 N OF "ALUMINUM GALLIUM NITRIDE (AL0-0.17GA0.83-1N)"/CN OR "ALUMI  
 NUM GALLIUM NITRIDE (AL0-0.1GA0.9-1N)"/CN OR "ALUMINUM GALLIUM  
 NITRIDE (AL0-1.22GA0.78-1N)"/CN OR "ALUMINUM GALLIUM NITRIDE  
 (AL0-0.25GA0.75-1N)"/CN OR "ALUMINUM GALLIUM NITRIDE (AL0-0.2GA0  
 .9-1N)"/CN OR "ALUMINUM GALLIUM NITRIDE (AL0-0.38GA0.62-1N)"/CN  
 OF "ALUMINUM GALLIUM NITRIDE (AL0-0.3GA0.7-1N)"/CN OR "ALUMINUM  
 GALLIUM NITRIDE (AL0-0.44GA0.56-1N)"/CN OR "ALUMINUM GALLIUM  
 NITRIDE (AL0-0.4GA0.6-1N)"/CN OF "ALUMI

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FILE 'REGISTRY' ENTERED AT 08:36:41 ON 04 JUN 2002

E ALUMINUM GALLIUM NITRIDE/CN

L1 1 S E4

FILE 'CAPLUS' ENTERED AT 08:39:37 ON 04 JUN 2002

L 2313 S L1

L3 19613 S EPITAXIAL GROWTH

L4 36 S L2 AND L3

FILE 'REGISTRY' ENTERED AT 08:49:11 ON 04 JUN 2002

E ALUMINUM GALLIUM NITRIDE CN

L3 161 S E1-164

FILE 'CAPLUS' ENTERED AT 08:53:14 ON 04 JUN 2002

=> s 15

L6 4473 L5

=> s 16 and 13

L7 103 L6 AND L3

=> d scan

L7 103 ANSWERS CAPLUS COPYRIGHT 2002 ACS

CC 76-3 (Electric Phenomena)

Section cross-reference(s): 75

TI Growth of gallium nitride and aluminum gallium nitride thin films using conventional and pendeo-**epitaxial growth** processes on 6H-silicon carbide (0001) and silicon(111) substrates

ST aluminum gallium nitride heterostructure silicon carbide

IT Heterojunction semiconductor devices

Growth of GaN and (Al,Ga)N thin films using conventional and pendeo-**epitaxial growth** processes on (0001)6H-SiC and (111)Si substrates for)

IT 409-41-3, Silicon monocarbide, processes 25617-97-4, Gallium nitride (GaN) **106097-44-3**, Aluminum gallium nitride Al<sub>0.1</sub>Ga<sub>0.9</sub>N

RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

Growth of GaN and (Al,Ga)N thin films using conventional and pendeo-**epitaxial growth** processes on (0001)6H-SiC and (111)Si substrates)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L7 103 ANSWERS CAPLUS COPYRIGHT 2002 ACS

CC 76-3 (Electric Phenomena)

103 H01L031-0323; H01L031-0336; H01L031-072; H01L031-109; H01L021-3209; H01L021-4763

NCL 256011000

CC 76-3 (Electric Phenomena)

TI Design and fabrication of a GaN field-effect transistor and an inverter device

ST semiconductor device fabrication gallium nitride field effect transistor inverter

IT Doping

Electron acceptors

Electron donors

Epitaxy

Field effect transistors

Inverters

Ion implantation

MISFET (transistors)

Semiconductor device fabrication

Semiconductor heterojunctions

Design and fabrication of a GaN field-effect transistor and inverter device)

IT 243 4-10-5, Aluminum nitride 25617-97-4, Gallium nitride (GaN)

**106097-44-3**, Aluminum gallium nitride ((Al,Ga)N)

RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)

Design and fabrication of a GaN field-effect transistor and inverter device)

IT 7430-45-4, Magnesium, uses 7440-44-0, Carbon, uses 7440-66-6, Zinc, uses

RL: MFA (Modifier or additive use); USES (Uses)

Design and fabrication of a GaN field-effect transistor and inverter device)

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 AU 2002:261146 CAPLUS  
 IN 136:131314  
 TI Gas source molecular beam epitaxy of high quality AlGaIn on Si and sapphire  
 AU Nikishin, S.; Kipshidze, S.; Kuryatkov, V.; Zubrilov, A.; Choi, K.;  
 Gheraschiu, Iu.; Grava de Peralta, L.; Prokofyeva, T.; Holtz, M.; Asomoza,  
 R.; Kudryavtsev, Ya.; Temkin, H.  
 CS Department of Electrical Engineering, Texas Tech University, Lubbock, TX,  
 79401, USA  
 SO Materials Research Society Symposium Proceedings (2001), 639(GaN and  
 Related Alloys--2000), G11.37/1-G11.37/6  
 CODEN: MRSPOH; ISSN: 0272-9172  
 EB Materials Research Society  
 JT Journal  
 LA English  
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 ALL CITATIONS AVAILABLE IN THE RE FORMAT

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